

Amendments to the Claims:

This listing of claims replaces all prior listings of claims:

1. (Currently Amended) A Wi-Fi switch comprising:

a multi-channel, multi-beam directed signal system configured for 802.11 specification data packet wireless computing communication with both of a first 802.11 client computing device and a second 802.11 client computing device; and

an antenna assembly configured to (i) receive and emanate wireless communication within a first directed beam with the first computing device via a first channel, and (ii) to receive and emanate a second directed communication beam for data communication reception from the second computing device via a second channel;

wherein;

the multi-beam directed signal system is configured to determine and adjust, by complementary beam-forming ~~to increase radiation levels of the nulls outside of the directed beam~~, a transmission peak for a particular directed beam in a non-omni-directional manner based on operational information associated with signal routing and further configured to direct a transmission null in a particular direction to maximize power associated with the transmission peak and minimize interference in the particular direction.

2. (Canceled)

3. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein:

~~the multi-beam directed signal system is further configured to generate a second directed wireless computing communication to a second 802.11 client computing device;~~

~~the antenna assembly is further configured to receive the second wireless computing communication and emanate a second directed communication beam for additional data communication with the second computing device; and~~

the antenna assembly is further configured to emanate the first directed communication beam such that only the first computing device will receive the data communication, and further emanate

the second directed communication beam such that only the second computing device will receive additional data communication.

4. (Canceled).

5. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein:

~~the multi-beam directed signal system is multi-channel and further configured for directed wireless computing communication with a second 802.11 client computing device;~~

the antenna assembly includes a phased array of antenna elements each configured to emanate a directed communication beam;

~~the antenna assembly is further configured to emanate the directed communication beam from a first antenna element for the data communication with the computing device via a first channel; and~~

~~the antenna assembly is further configured to emanate a second directed communication beam from a second antenna element for additional data communication with the second computing device via a second channel.~~

6. (Canceled).

7. (Canceled).

8. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein the antenna assembly is further configured to emanate the directed wireless communication beams each as an electromagnetic signal that includes transmission peaks and transmissions nulls within a coverage area of the communication beam.

9. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein:

the antenna assembly is further configured to emanate the first directed wireless communication beam as an electromagnetic signal that includes a signal transmission peak within a first coverage area and a signal transmission null within a second coverage area; and

the antenna assembly is further configured to emanate the [[a]] second directed wireless communication beam as a second electromagnetic signal that includes a second signal transmission

peak within the second coverage area and a second signal transmission null within the first coverage area.

10. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein the antenna assembly is further configured to emanate a ~~third second~~ directed wireless communication beam for the data communication with the first computing device when the directed wireless communication beam is determined ineffective for data communication.

11. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein:
the multi-beam directed signal system is further configured to determine when ~~each the~~ directed wireless communication beam is ineffective for data communication with the corresponding computing device, and is further configured to generate the directed wireless communication for the data communication via an additional second-directed wireless communication beam; and
the antenna assembly is further configured to emanate the additional second directed wireless communication beam for the data communication with the corresponding computing device.

12. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein ~~the antenna assembly is further configured to emanate multiple directed communication beams, and wherein the~~ multi-beam directed signal system includes signal coordination logic that monitors the multiple directed communication beams each as an individual access point.

13. (Currently Amended) A Wi-Fi switch as recited in claim 1, wherein the multi-beam directed signal system includes signal coordination logic that controls a directed wireless transmissions to and wireless receptions from the respective computing devices such that the transmissions do not interfere with the receptions ~~and directed wireless reception from a second computing device such that the directed wireless transmission does not interfere with the directed wireless reception.~~

14-15. (Cancelled).

16. (Currently Amended) A method, comprising:

generating from a Wi-Fi switch a first directed wireless communication for 802.11 specification data packet communication with a first 802.11 client computing device; receiving the first directed wireless communication at an antenna assembly;

emanating a first directed communication beam, associated with and adjusted for a transmission peak, which is adjusted relative to other beams of a multi-beam directed signal system by complementary beam-forming to increase radiation levels of the nulls outside of the directed beam, in a non-omni-directional manner, for the data communication with the first computing device; and

directing a transmission null in a particular direction to maximize power associated with the transmission peak and minimize interference in the particular direction; and

receiving, simultaneous with emanating the first direct communication beam, a second data communication from a second computing device via a second directed communication beam.

17. (Currently Amended) A method as recited in claim 16, further comprising: ~~generating a second directed wireless communication for additional data communication with a second computing device;~~

~~receiving the second directed wireless communication at the antenna assembly;~~

~~and~~

emanating a second directed communication beam, adjusted for a second transmission peak, for the additional data communication with the second computing device.

18. (Currently Amended) A method as recited in claim 16, further comprising: ~~generating a second directed wireless communication for additional data communication with a second computing device;~~

~~receiving the second directed wireless communication at the antenna assembly;~~

emanating a second directed communication beam, adjusted for a second transmission peak, for the additional data communication with the second computing device; and

wherein the first directed communication beam is emanated such that only the first computing device will receive the data communication, and the second directed communication beam is emanated such that only the second computing device will receive additional data communication.

19. (Currently Amended) A method as recited in claim 16, further comprising:
~~generating a second directed wireless communication for additional data communication with a second computing device;~~
~~receiving the second directed wireless communication at the antenna assembly;~~
emanating a second directed communication beam, adjusted for a second transmission peak, for the additional data communication with the second computing device; and
wherein the directed communication beam is emanated from a first antenna element of the antenna assembly, and the second directed communication beam is emanated from a second antenna element of the antenna assembly.

20. (Currently Amended) A method as recited in claim 16, further comprising emanating a second directed communication beam, adjusted for a second transmission peak, for data communication reception from the ~~the~~ ~~[[a]]~~ second computing device, and
wherein emanating the first directed communication beam. includes emanating the first directed communication beam for data communication transmission to the first computing device.

21. (Canceled).

22. (Currently Amended) A method as recited in claim 16, wherein emanating the first directed communication beam includes emanating an electromagnetic signal that includes transmission peaks along a signal path during data communication with the first computing device and transmissions nulls in another direction within a coverage area of the directed communication beam.

23. (Currently Amended) A method as recited in claim 16, further comprising:
determining that the first directed communication beam is ineffective for the data communication with the first computing device; and
emanating an additional ~~second~~ directed communication beam for the data communication with the first computing device.

24. (Currently Amended) A method as recited in claim 16, further comprising:
~~transmitting the data communication to the first computing device via the first directed communication beam;~~
~~receiving a second data communication from a second computing device via a second directed communication beam; and~~
~~controlling transmission of each data communication so that it does not interfere with other data transmissions transmitting the data communication such that the data communication does not interfere with receiving the second data communication.~~

25-63 (Canceled).

64. (Currently Amended) A Wi-Fi switch comprising:
a multi-beam directed signal system configured for 802.11 specification data packet wireless computing communication with a 802.11 client computing device; and
an antenna assembly configured to receive and emanate wireless communication within a directed beam with the computing device,
wherein the multi-beam directed signal system is configured to determine and adjust, by complementary beam-forming to increase side lobe levels, a transmission peak for a particular directed beam in a non-omni-directional manner based on operational information associated with signal routing and further configured to direct a transmission null in a particular direction to maximize power associated with the transmission peak and minimiz[[s]]e interference in the particular direction, and the multi-beam directed signal system is multi-channel and further configured for simultaneous directed wireless computing communication with a second 802.11 client computing device;
the antenna assembly is further configured to emanate the directed communication beam for data communication transmission to the computing device via a first channel; and
the antenna assembly is further configured to emanate a second directed communication beam for data communication reception from the second computing device via a second channel.

65. (Currently Amended) A method, comprising:
generating from a Wi-Fi switch a directed wireless communication for 802.11 specification data packet communication with a 802.11 client computing device;

receiving the directed wireless communication at an antenna assembly; emanating a directed communication beam, associated with a transmission peak, which is adjusted relative to other beams of a multi-beam directed signal system by complementary beam-forming to increase side lobe levels, in a non-omni-directional manner, for the data communication with the computing device; and

directing a transmission null in a particular direction to maximize power associated with the transmission peak and minimize interference in the particular direction,

transmitting the data communication to the computing device via the directed communication beam adjusted for a transmission peak;

receiving a second data communication from a second computing device via a second directed communication beam; and

wherein transmitting the data communication and receiving the second directed data communication is simultaneous.